

BLOCK SALT SOFTENER INSTALLATION INSTRUCTIONS

Plumbing Regulations

This water softener should be installed in accordance with the plumbing regulations. Copies are available from your water softener dealer. Ask for:

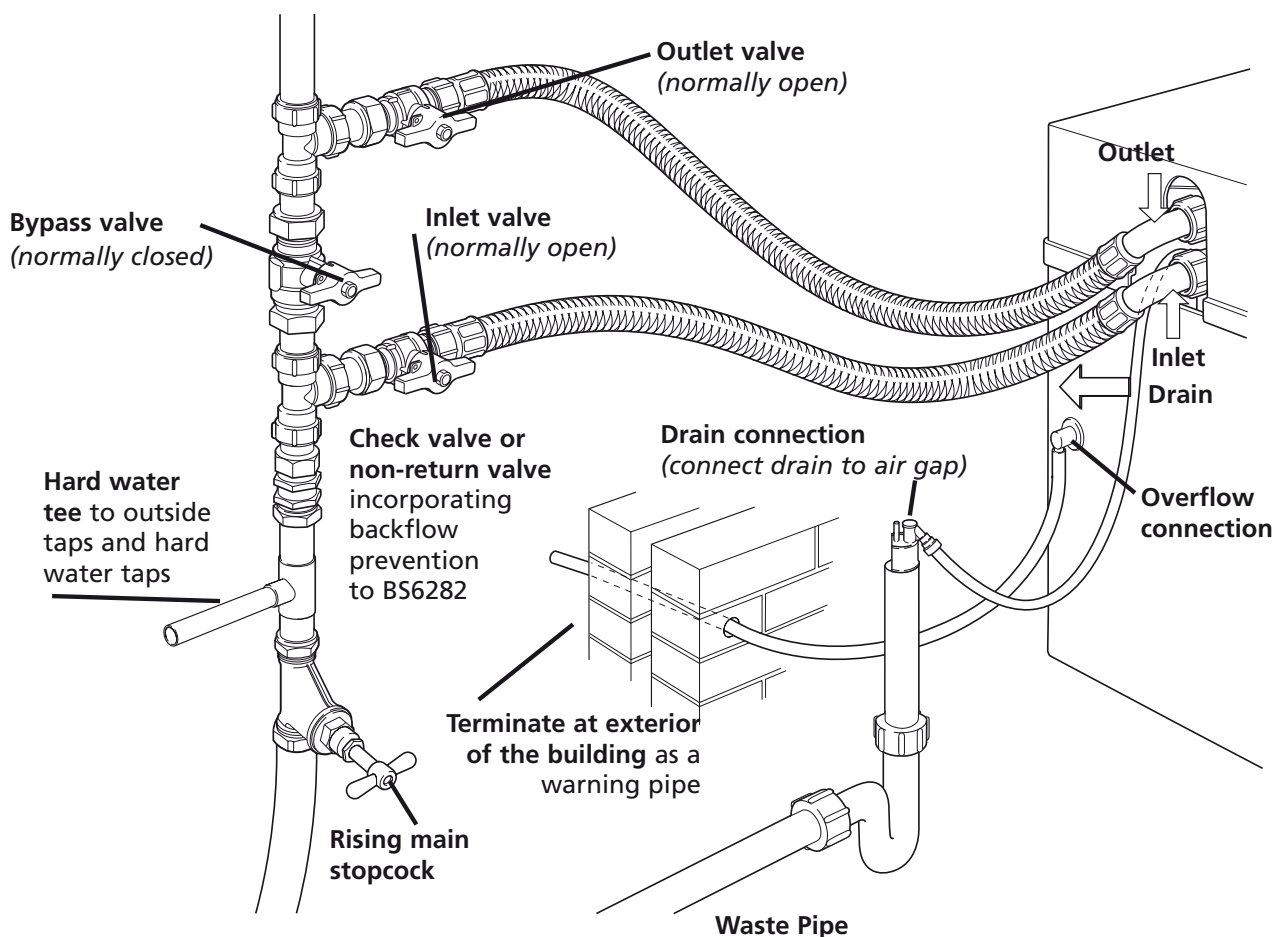
WRAS Information for Installation of Ion exchange Water Softeners for Systems Supplying Water for Domestic Purposes. June 2007 No 9-07-01.

Water pressure

The recommended operating pressure is between 1.5 and 6 bar (20 and 90psi), but the pressure should not be below 1 bar (15psi) when water is flowing, or exceed 8 bar (120psi). To check the water pressure you need to connect a pressure gauge to the garden tap, kitchen tap, or any other tap connected directly to the

mains water supply. Alternatively you may contact the local water supplier who will tell you the water pressure in your area. If the water pressure is above 6 bar we recommend installing a pressure limiting valve which is available from your softener supplier.

PLUMBING



The diagram above shows how easy it is to install the Block Salt water softener. There are just four connections: mains water inlet, outlet, drain and overflow.

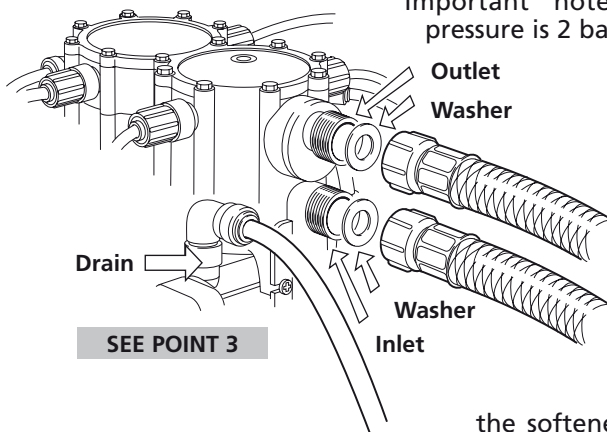
1 DRAIN RISING MAIN

Before cutting the rising main, turn off the stopcock and open an upstairs tap that is fed from the roof storage tank. Run sufficient water so that the ball valve feeding the tank opens. Then turn on the kitchen sink cold tap and let it run until it stops. Your rising main is now empty.

3 PLUMB INLET, OUTLET & DRAIN

Remove the red plastic caps from the softener inlet, outlet and drain. Run the pipe-work from the bypass to the water softener using WRAS approved flexible hose. Connect Hose connectors, nuts and washers as diagram.

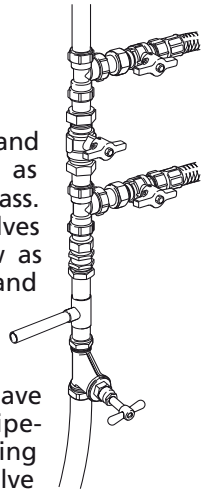
Connect the 3/8" drain tube via the air gap fitting by pushing the tube firmly into the connection. Run the tube to a convenient drain and connect to the drain via the air gap fitting. If the drain runs outside it must be protected from freezing.



Important note: If the water pressure is 2 bar or less the length of the drain tube must not exceed 3m and the discharge point should be below the top of the softener. The length of the drain tube may be increased by 1m, and the discharge point above the top of the softener may increase by 0.5m, for each 1 bar above 2 bar.

2 INSTALL CHECK VALVE & BYPASS

Cut the rising main and fit the three valves as shown to form a bypass. Install proprietary valves with direction of flow as indicated. Garden taps and hard water drinking taps, if fitted, should be teed off before the bypass. You may have to run additional pipe-work to alter the existing plumbing. A check valve (complying with BS6282) must be fitted in the rising main before the bypass.

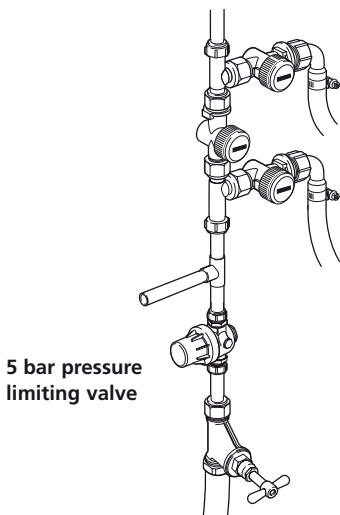


4 PLUMB OVERFLOW

Connect the overflow hose to the overflow elbow on the side of the cabinet. No securing clip is necessary as it is not under pressure. The hose should be run downhill all the way and terminate at the exterior of the building if possible.



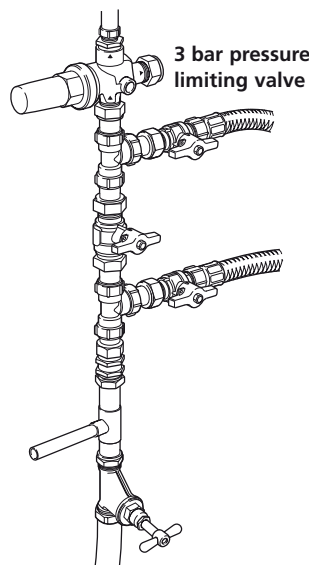
Where to fit a pressure reducing valve



5 bar pressure limiting valve

15mm Indirect system

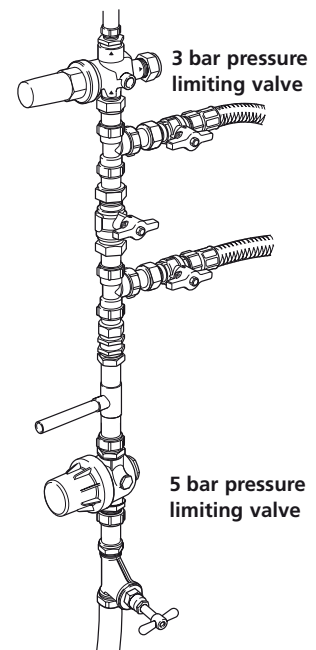
On a traditional indirect system with a roof storage tank the pressure limiting valve should be installed after the rising main stopcock and before the bypass set. It may be installed before or after the hard water tee to the outside tap and drinking tap etc.



3 bar pressure limiting valve

22mm Direct system

On the more modern direct system there is normally a 3 bar pressure limiting valve. This must always be installed after the water softener bypass. If you connect the 3 bar pressure reducing valve before the water softener there will be insufficient flow.



3 bar pressure limiting valve

5 bar pressure limiting valve

22mm Direct system

Where you have a direct heating system with the inlet pressure above 6 bar then an additional pressure limiting valve should be fitted after the stopcock and before the bypass. Note that the 3 bar pressure limiting valve must always be installed after the bypass.

WARNINGS AND ADVICE

Installation Position

Do not install the water softener next to a boiler where it may be subjected to excessive heat.

Freezing

The softener and pipework including the drain must be installed such that the installation is not subjected to freezing conditions.

Hoses

The hoses must be approved hoses as supplied in the recommended installation kit. Do not use washing machine or garden hose as these are not suitable.

Heat

Do not run the hoses close to boilers, radiators, or hot water pipes. Never run behind boilers or radiators. Remember, heat melts hoses.

Separate Hard Water Drinking Tap?

Whilst many authorities recommend a separate hard water drinking tap it is essentially the customers choice.

If you do fit a tap it does not have to be at the kitchen sink. Any suitable position is acceptable.

Where the water hardness is below 400ppm the softened drinking water is suitable for everybody.

Above 400ppm the softened water is not recommended for the mixing of baby feeds or the immunocompromised but is ok for everyone else.

For further information ask your water softener dealer for the booklet Softened Drinking Water L458 or visit www.ministryofcommonsense.org.

Copies of WRAS guidance note No 9-07-01 Installation of Ion Exchange Water Softeners explain the plumbing regulations regarding separate drinking water taps. Copies are available from your water softener dealer.

Condensation

In some damp kitchen environments there is a problem with condensation. To prevent this lag the pipe-work connected to the softener.

Electrical Earth Bonding

If you alter the rising main pipework, ensure that you maintain the integrity of the earth bonding.

Dishwashers

When installing a water softener, note should be taken of whether the dishwasher should be connected to the hard or soft supply. Consult the dishwasher manufacturers' instructions for advice.

New Dwellings

When installing a softener into a new dwelling the softener should not be put into service before the entire plumbing system has been completed and flushed.

Hygiene

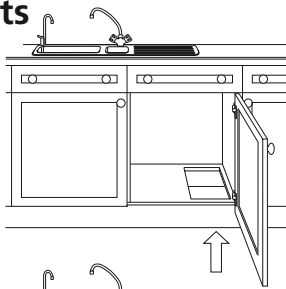
Remember that you are dealing with drinking water. Exercise normal domestic hygiene precautions particularly when breaking into the water supply and connecting the bypass system. Flush the system thoroughly before use.

Kitchen Units

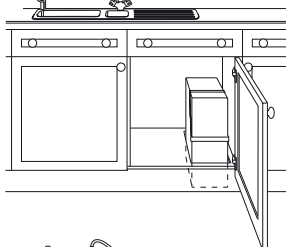
When installing a Block Salt Softener inside a kitchen base unit, you must either: **A** cut through the floor of the unit so that the water softener sits on the kitchen floor, or **B** fit supports underneath the floor of the kitchen unit to sustain the very heavy weight of the water softener.

Kitchen Units

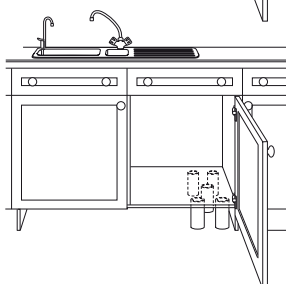
Option A
Cut hole to the size of softener.



Option A
Drop softener through hole on to kitchen floor.

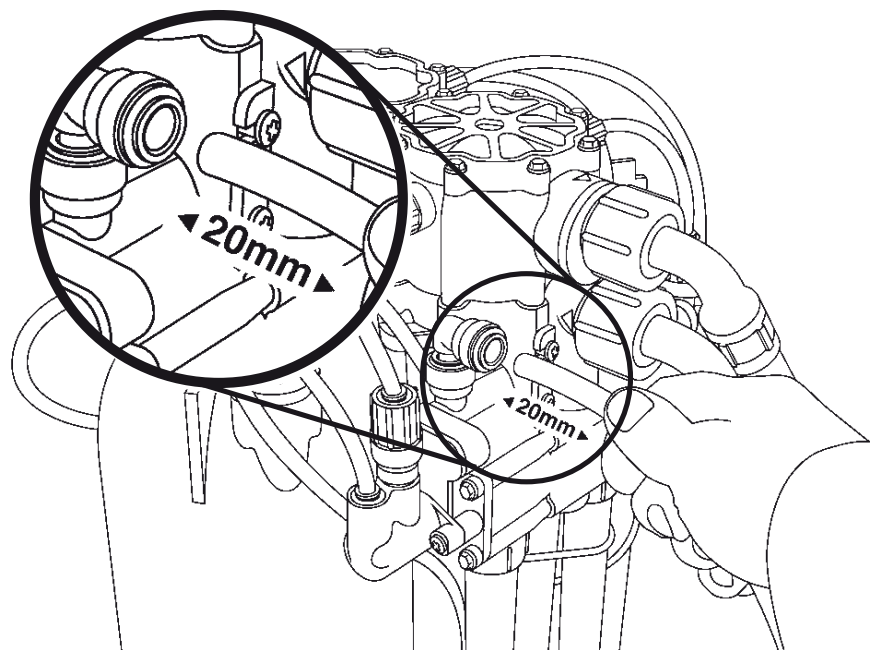


Option B
Cut 5 pieces of 1 1/2" waste pipe to fit between floor and base of unit.



Drain connection

The drain tube is connected to the grey JG elbow. The tube must be pushed into the elbow 20mm to ensure a leak free joint. Check joint does not leak during regeneration.

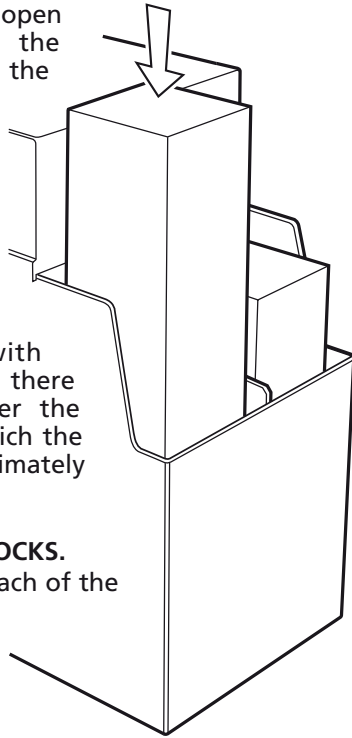


Setting the softener to work

With the bypass and outlet valve closed, slowly open the inlet valve to the softener. Then open the outlet valve and the soft water kitchen tap to flush the pipework. After a few minutes close the kitchen tap and check the pipework for leaks. Manually fill with water via a jug until there is sufficient to cover the salt platform, on which the blocks sit, by approximately 10 mm (1/2")

LOAD WITH SALT BLOCKS.

Place a saltblock in each of the two salt bays.



Manual regeneration.

Close the outlet valve

Before you regenerate the softener make sure the water level is above the platform in the salt compartment by 10mm, if not manually fill with a jug to this level.

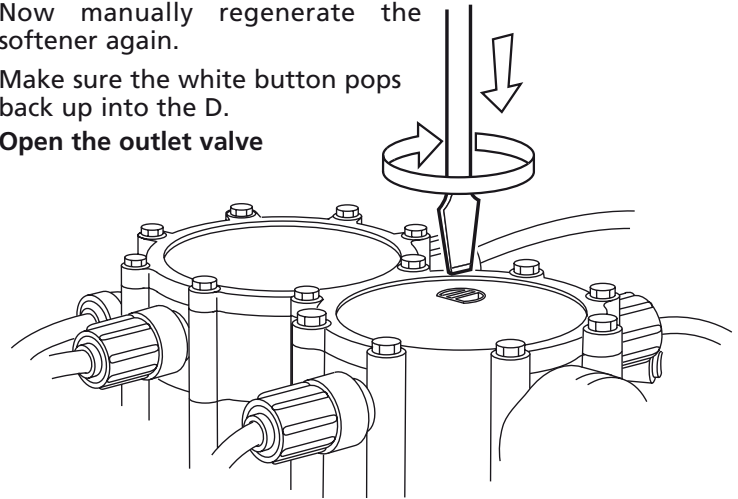
Manually regenerate the softener by inserting a bladed screw driver into the white button under the cover and depress. Rotate slowly one complete turn clockwise, adjusting the position until the button pops back up. Make sure the white button pops back up into the D.

Water will now go down the drain for about 12 minutes removing the water from above the platform in the salt compartment. Then the cabinet will refill above the platform.

Now manually regenerate the softener again.

Make sure the white button pops back up into the D.

Open the outlet valve



Finally check for leaks and clean up site.

YOU ARE NOW FINISHED BUT BEFORE YOU GO SEE BOTTOM OF PAGE.

BEFORE YOU GO

Show Customer

Show the customer how to load the salt cabinet with Harvey's name on the side and explain that only Harvey's Block Salt should be used. Explain that the first blocks will dissolve rapidly to make up a stock of brine. They may then place additional blocks on top of the first blocks as space becomes available. Also show them where the bypass is and how to use it.

Tell Customer

When they return from holiday, or if the softener has not been used for more than 4 days, we recommend that the softener is flushed by allowing the water to run to drain for a minute or two.

Before leaving check the following:

Bypass

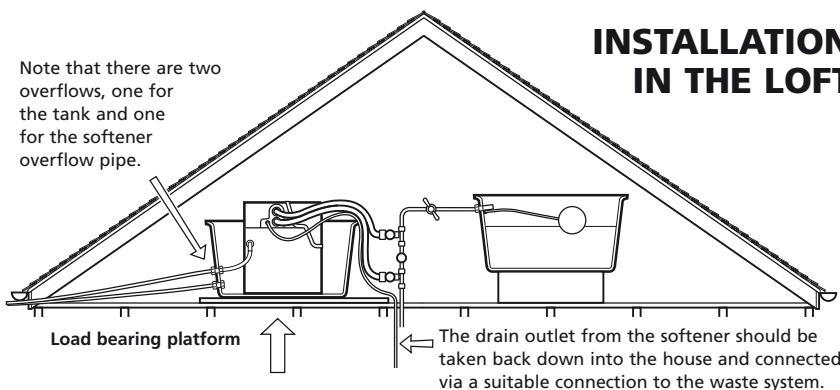
Check that the bypass valve is closed and the inlet and outlet valves are open.

Soft water

Check at the kitchen tap that soft water is coming through. If you do not have a hard water test kit wash your hands in a bowl of cold water with a bar of soap. When the water is soft you will get lots of lather and no scum. If you get scum, the water is hard.

INSTALLATION IN THE LOFT

Note that there are two overflows, one for the tank and one for the softener overflow pipe.



The Block Salt Softener may be installed in the loft or roof cavity but it should be within a safety tank. A suitable tank is a plastic roof storage tank sufficiently large to accommodate the block salt softener. Please note that it should be mounted on a board strong enough to spread the weight over a load bearing wall.